

What is the Lunar Polar Exploration Mission (LUPEX)?

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About LUPEX Mission:

- It is a collaborative mission between **ISRO and Japan Aerospace Exploration Agency (JAXA)**.
- **Objective:** To explore the **moon's southern polar region**, investigating the presence of water and other elements, potentially in the form of surface ice.
- It aims to showcase innovative surface exploration technologies. The special focus is on vehicular transport and lunar night survival.
- It features both a **lander and a rover**.
- JAXA is responsible for developing and operating the rover, and ISRO for developing and operating the lander that will carry the rover.
 - The rover will drive on its own to search for areas where water is likely to be present and sample the soil by digging into the ground with a drill.
 - The plan is to acquire data by analyzing the collected samples in detail with observation equipment mounted on the rover.
 - The rover will be equipped with instruments for **measuring the water content** of regolith (lunar sand), drilling, and sampling, as well as with other world-first and world-leading technologies for the driving system and batteries.

- The rover will carry not only the instruments of **ISRO** and JAXA but also those of the US space agency NASA and the European Space Agency (ESA).
 - The mission is scheduled to **launch in 2025**.
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Q1: What is the Indian Space Research Organisation?

The Indian Space Research Organisation (ISRO) is the space agency of India, responsible for the planning and execution of space-related activities in the country. ISRO is one of the most prominent and successful space agencies in the world, known for its cost-effective and efficient space missions.

Source: India's fifth lunar mission 'Lupex' gets a nod. Here's all you need to know

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